



# UNITED STATES PATENT AND TRADEMARK OFFICE

5.7  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,814	12/28/2001	William Brandt Goldsworthy		3292

7590 10/21/2004  
Christie, Parker & Hale, LLP  
P.O BOX 7068  
Pasadena, CA 91109-7068

EXAMINER

NGUYEN, CHAU N

ART UNIT	PAPER NUMBER
----------	--------------

2831

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/037,814

Applicant(s)

GOLDSWORTHY ET AL.

Examiner

Chau N Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,6-12,19-22,25,27 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12,19-22,25,27 and 29-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1, 4, 6, 7, 19 and 22 are objected to because of the following informalities:

in claim 1, line 7, delete "cylindrically",

in claim 4, line 4, change "sections" to --members--,

in claim 6, line 3, change "individual sections" to --core members--,

in claim 7, line 7, delete "conductor",

in claim 7, line 11, change "being" to --is--,

in claim 19, line 7, delete "cylindrically",

in claim 19, line 10, before "cylindrically" insert --solid--,

in claim 22, line 2, delete "central". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-4, 6-11, 25, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voser (4,449,012) in view of Yonechi et al. (4,966,434).

Voser discloses an electrical current carrying conductor for long distance transmission of electrical current, the conductor comprising a relatively solid high tensile strength central load carrying core (36,41 Figures 5 and 6) formed from a fiber reinforced composite material (col. 9, lines 49-52), the core being of sufficient cross-sectional size to support the tensile loading on the conductor, and an outer highly conductive electrical current carrying sheath (34) completely surrounding the load carrying core for carrying electrical current over the distance (re claims 1 and 7).

Voser does not disclose the core being formed from a plurality of generally arranged component core members which abut together and which are each generally polygonally shaped in cross-section and when abutted together define a generally solid cylindrically shaped core (re claims 1 and 7). Yonechi et al. discloses a cable comprising a tensile strength central load carrying core (2, Figure 3) formed from a plurality of generally arranged component core members (21) which abut together and which are each generally polygonally shaped in cross-section and when abutted together define a generally solid cylindrically shaped core. It would have been obvious to one skilled in the art to modify the core (36 or 41) of Voser according to the teaching of Yonechi et al., forming the core by a plurality of core members, so that the tension applied to the current carrying sheath is not increased when the cable is stretched.

The modified cable of Voser also discloses the reinforced composite material being comprised of a plurality of aligned reinforcing fibers embedded in a thermoplastic composite matrix (re claims 3 and 11), the core members being capable of being separated from one another (re claim 4), the core members being generally triangular in cross-section (re claim 6), helically (col. 9, lines 44-45) winding individual wires of a highly conductive current carrying conductor about the central core (re claims 8 and 9). Re claims 2, 10 and 25, it would have been

obvious to one skilled in the art to use aluminum (not aluminum alloy) for the conductive outer sheath of Voser since aluminum is a well-known conductor in the cable art for its highly electrical conductivity. Re claims 29 and 30, the modified core of Voser would allow for the winding of the conductor around a drum since it comprises structure and material as claimed.

5. Claims 12, 19-22, 27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voser in view of Yonechi et al. as applied to claim 1 above, and further in view of Nakagome et al. (4,422,718).

The combination of Voser and Yonechi et al. discloses the invention substantially as claimed except for a fiber optic cable extending through the central core. Nakagome et al. discloses a cable comprising a fiber optic cable extending through a central core (Figures 3A, 20 and 21). It would have been obvious to one skilled in the art to apply the teaching of Nakagome et al. in the cable of Voser such as providing a fiber optic cable which extends through the modified central core of Voser to provide a composite conductor (electrical and optical).

***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 7 and 19 have been considered but are moot in view of the new ground(s) of rejection.

***Summary***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

*Communication*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Chau N Nguyen', with a long horizontal flourish extending to the right.

Chau N Nguyen  
Primary Examiner



Application/Control Number: 10/037,814  
Art Unit: 2831

Page 8

Art Unit 2831